

Appl. No. 10/709,202
Amdt. dated October 25, 2005
Reply to Office action of August 5, 2005

REMARKS and ARGUMENTS

The claims are not amended and are listed above only for convenience to the Examiner.

- 5 **1. Rejection of claims 1-17 under 35 U.S.C. 103(a) as being unpatentable over Kitlas et al. (US 5,852,547), hereinafter "Kitlas," in view of Marquis et al. (US 6,113,485), hereinafter "Marquis":**

10 The applicant argues that this rejection should be withdrawn because the combination is unreasonable.

15 The teachings of Marquis are incompatible with those of Kitlas. Specifically, the stacked arrangement of the CPU, heat sink, and fan would not work in Kitlas because air would not flow as expected (Fig.10). Referring to Figs.1 and 10 of Kitlas, it is clear that the CPU module 14 and heat sink thereon are both disposed perpendicular to the cooling fan 12. This is understandable, since Kitlas is highly concerned with air flow through the rectangular enclosure housing 16 as supported by the "distinct air flow patterns" (col. 4 lines 64-65) of Fig.10 which is a prime advantage of Kitlas's teachings (col. 5 lines 20-28). Clearly, a specific air flow pattern is important to Kitlas, which is realized by the perpendicular arrangement of the CPU and heat sink to the fan 12.

20 Stacking Kitlas's fan 12 onto the CPU module 14 or the heat sink (leaving the fan as shown in Fig.1) would stagnate the air flow within the enclosure 16. That is, the air would be propelled directly against a wall of the enclosure 16 and would effectively move nowhere. It is argued
25 that this arrangement would not live up to the desired flow patterns of Fig.10 and would likely result in the CPU overheating.

On the other hand, stacking the CPU module 14 and the heat sink onto the fan 12 would

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5 result in the CPU and heat sink being perpendicular to the air flow through the enclosure 16. This would also result in stagnated air flow inside the enclosure 16 (air would be blocked by the CPU) and would also require much modification of the electrical connection of the CPU module to the motherboard 18. Such blocked air flow and requirement for modification are not conducive to obviousness.

10 Thus, the applicant argues that Kitlas's device is incompatible with the stacked arrangement of CPU, heat sink, and fan as taught by Marquis. One of ordinary skill in the art, when considering Kitlas's teachings as a whole, would not be motivated to stack the CPU, heat sink, and fan of Kitlas since there would be little chance of successfully effectively cooling the CPU and computer as Kitlas intended. In this way, the stacked arrangement even runs counter to Kitlas's teachings.

15 In essence, Kitlas requires a **perpendicular** relationship of the CPU and heat sink with the fan, while claims 1 and 10 require a stacked (**parallel**) relationship. Marquis does indeed teach a stacked arrangement, however, as argued above, Kitlas is incompatible with such stacked arrangement. Thus, the applicant argues that the combination of Kitlas and Marquis to reach the claimed invention would not be obvious to one of ordinary skill in the art.

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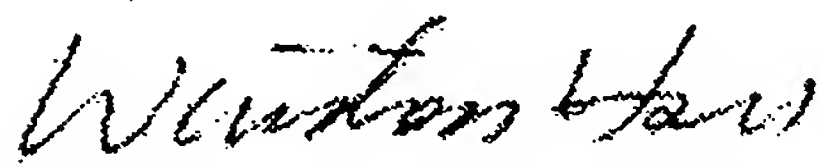
The applicant respectfully requests withdrawal of this rejection in view of the arguments above. Claims 2-9 and 11-17 are dependent and should be allowed if claims 1 and 10 are allowed.

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Sincerely yours,

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15 is 12 hours behind the Taiwan time, i.e. 9 AM in D.C. = 9 PM in Taiwan.)